

## Assessment of Integrated Teaching by Medical Students in Mamata Medical College, Khammam, Andhra Pradesh

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### ABSTRACT

**AIM:** To determine the opinion of students regarding integrated teaching. **Materials and Methods:** The study was conducted in the Department of Pharmacology, Mamata Medical College, and Khammam. Fourth & fifth semester II MBBS students were included in the study. The survey was done after completion of eight horizontal integrated teaching classes. A structured validated questionnaire was prepared which consists of 7 questions with 2-5 options and was given to each of them. They were asked to select the options which they felt was/were the best. Students were allowed to give their own suggestions or remarks wherever necessary. Students were instructed not to reveal their identity in the questionnaire. The completed questionnaires were collected and assessed. **Result:** The method of integrated teaching was well accepted by students and found to be more effective in medical curriculum.

**Keywords:** Horizontal integrations, Integrated teaching, Vertical integration

### INTRODUCTION

Medical curriculum is vast and students are expected to learn many subjects at the same time [1]. Teaching undergraduate medical students frequently remains a task. The term integration in education means coordination in the teaching learning activities to ensure harmonious functioning of the educational processes [2]. In recent years, throughout the world Integrated learning have been used by faculties to teach the students [3]. Medical educationists realized that there was need for integrating medical subjects to capture students attention and creates more excitement in learning [4]. Integrated thinking offers the capacity to individualize [5], helps to interrelate or unify subjects and make undergraduate medical students to understand the subject in depth. Integrated learning helps to improve the quality of students and to have effective diagnosis and better treatment of the patient. Medical educationists realized that there was need to introduce integrated teaching.

The students trained with such an integrated curriculum, make more accurate diagnosis than did students trained in a conventional curriculum [6]. Integrated teaching was introduced in the Mamata Medical College, Khammam, in year 2012. This study was conducted to analyse the perception of integrated teaching from undergraduate medical students' point of view. The students were queried regarding their attitudes towards integration, for facilitating the implementation of the integrated curricula.

### MATERIALS AND METHODS

The study was conducted in the Department of Pharmacology, Mamata Medical College, and Khammam. The study was approved by Institutional Ethics Committee. Inform consent forms were administered to Fourth & fifth semester II MBBS students (n=225) before taking opinion on horizontal integrated teaching methodology in which departments of Pharmacology, Microbiology, Pathology and Forensic Medicine has taken part. A curriculum committee was formed by the heads of the paraclinical

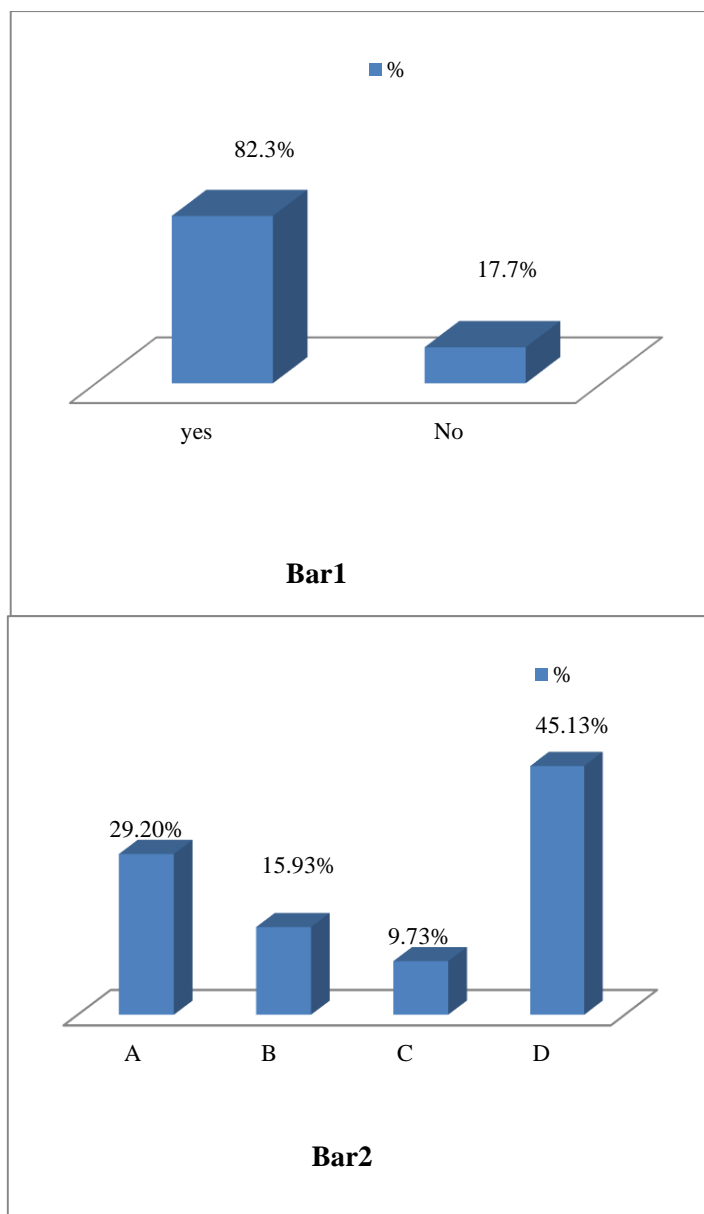
departments, namely pathology, microbiology, forensic medicine and pharmacology for framing a time table. Eight such integrated classes were taken before starting the study. A structured validated questionnaire was prepared which consists of seven questions with 2-5 options and was given to each of them. They were asked to select the options which they felt was/were the best. Students were allowed to give their own suggestions or remarks wherever necessary. Students were instructed not to reveal their identity in the questionnaire. The completed questionnaires were collected and assessed.

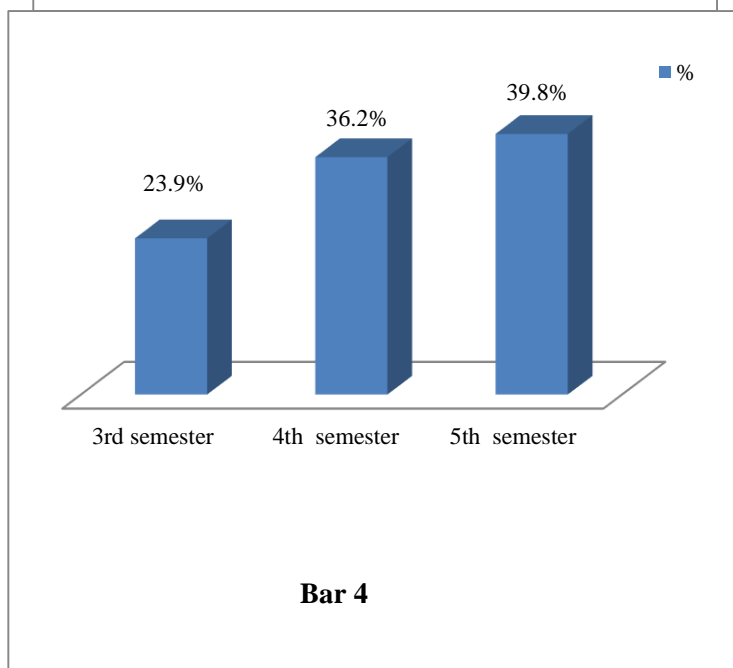
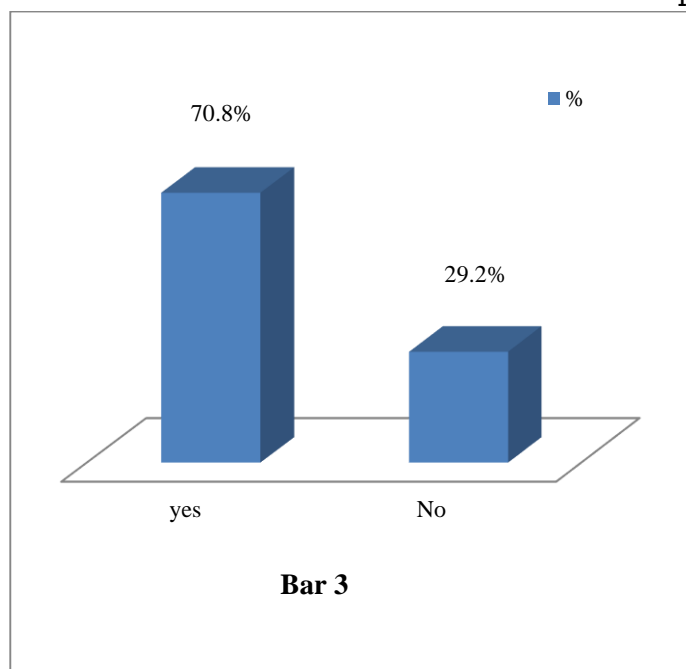
### RESULTS

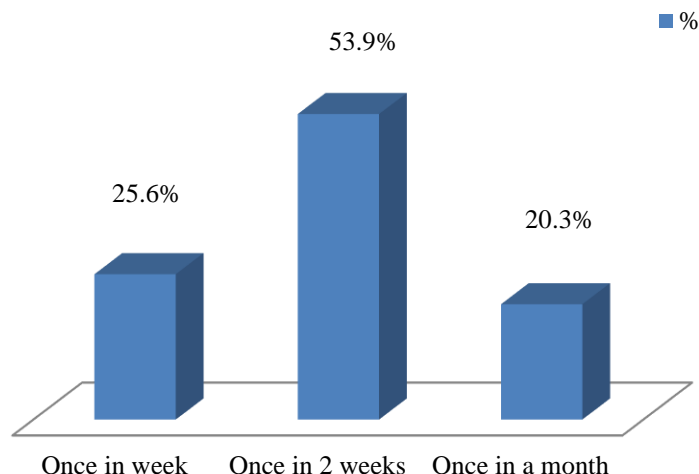
The results of this study show that, 82% of the participants opined that integrated teaching help in enhancing their knowledge. Only 18% of them said no as shown in Bar diagram 1. 29% of the students say that integrated teaching enhance their knowledge because it includes all aspects of single topic in depth. Sixteen percent [16%] think that it saves their time in referring other books for extra details regarding a particular topic. Ten percent [10%] expressed that it provides a route to get an idea about the final year subjects like medicine, surgery, OBG, Pediatrics etc. Forty five percent [45%] opined that integrated teaching is very useful because of all above reasons. [Bar 2] Seventy one [71%] of the students says that integrated teaching creates interest in the subject. [Bar 3] Twenty four percent [24%] of students think that integrated teaching should be implemented in 3<sup>rd</sup> semester where as 36% of the students think that integrated teaching should be implemented in 4<sup>th</sup> semester, but 40% of them opined that integrated teaching should be implemented in 5<sup>th</sup> semester. [Bar 4] Fifty four percent [54%] of the students want integrated teaching to be conducted frequently once in two weeks. 26% says that it should be conducted once in a week. [Bar 5] Seven to eight percent [7-8%] of them think that integrated teaching should be taken by Associate Professors, Assistant professors and Post graduates. Thirty six [36%] say that integrated teaching

should be taken only by professors where as forty one percent [41%] say that it should be taken by all faculty members. [Bar 6] In other comments the students perceived that integrated teaching enhanced the student's understanding of the diseases in correlating

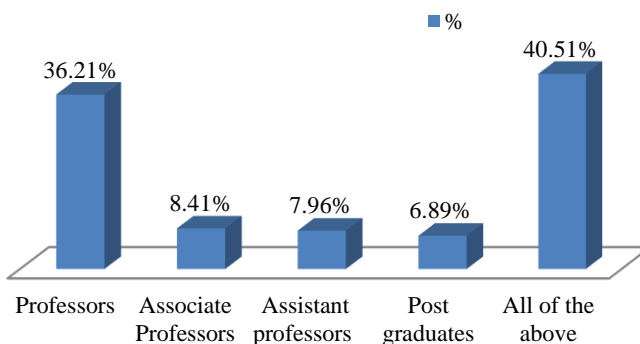
the Para clinical and the clinical subjects and should be taken continuously. The negative aspects which were stated were that the sessions were time consuming and that this cut down the time for the self study.







**Bar 5**



**Bar 6**

## DISCUSSION

The recent innovations and trends in medical education which are implemented globally are self directed learning, problem based learning, integrated teaching and community orientation [7] In this study Students opined that integrated teaching Enhances the medical knowledge, Creates interest in the subject, helps them

to retain the subject better, should be conducted once in two Weeks and should be introduced in 4th semester. Students were enthusiastic about the integrated teaching method and felt that they had a better clinico-pathological correlation. Students wanted this approach to be extended. Only few students felt that lot of time was spent on teaching a single topic. A

similar finding was noted by Vyas et al. 8](4) Horizontal integration blends either the related basic science disciplines in order to enhance the student's understanding of the body systems, or the related clinical science disciplines through interdisciplinary clerkships [9]. Schmidt [10] reported that in his experience, integration was most successful when it occurred naturally as a part of the teaching and learning process, rather than that of the mandated course structure. To improve the quality of students and to have effective diagnosis and better treatment of the patients, integrated learning is the need of hour. In recent years throughout the world such curricula have been used by faculties to teach the students [11.12] Horizontal integration blends either the related basic science disciplines in order to enhance the student's understanding of the body systems, or the related clinical science disciplines through interdisciplinary clerkships. [13] In one of the study students suggested that more integrated teaching classes to be taken regularly to the subsequent integrated teaching sessions. [14]

Our study also confirms that the students want integrated teachings to be taken regularly. Another study suggested [15] that Proper efforts should be attempted to expose the medical students to the real research environment and the academic way of thinking, in order to create health professionals with an ongoing interest in medical research. It is said that students learn best when they are engaged by different materials of learning presented in variety of ways and formats. [16] The present study indicates that the medical curriculum should modify the traditional methods of teaching slowly and integrated teaching should be introduced in undergraduate medical curriculum.

## CONCLUSION

The method of integrated teaching was well accepted by students and found to be more effective in medical curriculum. This indicates that there is a need to modify the traditional methods of teaching. Integrated approach in teaching should be introduced in undergraduate medical curriculum.

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## FORMAT FOR APPROVAL OF ETHICS COMMITTEE

To

Dr. T. JAYASREE

Dear Dr. T. JAYASREE, PROFESSOR & HOD, MAMATA MEDICAL COLLEGE, KHAMMAM.

The Institutional Ethics Committee reviewed and discussed your application for the study titled

ASSESSMENT OF INTEGRATED TEACHING BY MEDICAL STUDENTS IN MAMATA MEDICAL COLLEGE KHAMMAM, ANDHRA PRADESH.

The following documents were reviewed:

- a) Protocol :
- b) Copy of the informed consent form in English and vernacular language
- c) Proposed methods for patient recruitment
- d) Principal Investigator's name
- e) Investigator's Undertaking

### FOLLOWING MEMBERS

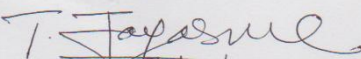
The following members of the ethics committee were present at the meeting held on (date, time, and place).

DR. T. JAYA SREE	Chairman of the ethics Committee
DR. B. ANVRADHA	Member secretary of the Ethics Committee
DR. SASE SEKHAR	PROFESSOR, DEPT OF MICROBIOLOGY
DR. VIJAYASREE	ASSOCIATE PROFESSOR, DEPT OF SURGERY.
DR. B.P. RAVIKUMAR	PROFESSOR, DEPT OF OBSTETRICS & GYNAECOLOGY
	PROFESSOR, DEPARTMENT OF COMMUNITY MEDICINE.

We approve the study to be conducted in its present form.

The Institutional Ethics Committee expects to be informed about the progress of the study, any changes in the protocol and patient information/ informed consent and asks to be provided a copy of the final report.

Yours sincerely,

  
Chairman, Ethics Committee  
CHAIRMAN  
Human Ethics Committee  
Mamata Medical College  
KHAMMAM (A.P.)